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Prevalence and acceptance of methadone recommendations in hospice and palliative care

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BACKGROUND

- Clinical pharmacists play an important role in the care of patients in hospice/palliative care, particularly for the treatment of pain
- One of the core responsibilities of a clinical pharmacist is recommending and optimizing individualized medication regimens
- Methadone, a long-active opioid, is particularly useful for pain control in many patients in hospice/palliative care, but may be underutilized

OBJECTIVES

- The objective of the study was to evaluate the prevalence of pharmacist recommendations and subsequent physician acceptance for the use of methadone for pain in newly admitted hospice/palliative care patients

METHODS

- The study was conducted from October-December 2019 in coordination with a locally-based pharmacy services organization which works with hospice/palliative care providers
- A selected group of pharmacists at the organization identified new hospice/palliative care admissions as part of their usual clinical care process
- The first phase of data collected included patient demographics, type of pain, medication history, pain intensity and palliative prognosis score (range: 1-100) at the time of admission; furthermore, it identified whether a recommendation for methadone was made by the pharmacist based on individual indications/contraindications.
- Patients who had recommendations for methadone rendered were followed up with a second phase of data collection by a member of the research team
 - Further data collected included whether the provided recommendation was accepted or not, as well as additional patient information including allergies, comorbidities, hepatic/renal function, nutritional status pain medication history, current pain intensity and palliative prognosis score.

RESULTS/TABLES

Table 1. Demographics		
	n	Mean (SD)
Height (m)	126	1.6 (0.1)
Weight (kg)	133	65.7 (15.1)
BMI (kg per m ²)	125	23.8 (5.0)
Age (years)	156	79.6 (13.8)
Palliative prognosis score at admission	150	37.2 (12.1)
Palliative prognosis score at follow-up	146	37.4 (12.0)
Days from date of admission	135	21.2 (24.4)

Table 2. Type of pain	
	n (%)
Nociceptive	62 (39.2)
Neuropathic	5 (3.2)
Both	4 (21.5)
Missing	57 (36.0)

Table 3. Hospice type	
	n (%)
Home	121 (76.6)
Nursing home	22 (13.9)
Assisted living	10 (6.3)
Inpatient	4 (2.5)
Missing	1 (0.6)

Table 4. Type of pain medication	
	n (%)
Opioids	153 (96.8)
APAP	55 (34.8)
Opioid/APAP	19 (12.0)
NSAID	6 (3.7)
Gabapentinoids	16 (10.1)
Other	12 (7.6)

Note: One patient can be included in more than one category

Table 5. Types of methadone recommendations	
	n (%)
Switch to maintenance treatment	26 (16.5)
Addition as adjunctive/adjuvant	7 (4.4)
Other	3 (4.2)

Table 6. Indications for methadone use	
	n (%)
Neuropathic pain	23 (14.6)
Severe renal impairment	9 (5.7)
Other	6 (3.8)
High opioid tolerance	2 (1.3)
Morphine allergy	3 (1.9)
Refractory to other opioids	2 (1.2)

Note: One patient can be included in more than one category

DISCUSSION

- This research is currently a work-in-progress
- Data was analyzed for 158/159 patients based on adult hospice patient inclusion criteria of the study
- The demographic and clinical characteristics of the patients collected through the tool aided the pharmacists in making a clinical judgement of providing methadone recommendation or not
 - The mean sample age of the sample was 79.6 years (SD: 13.8 years) (**Table 1**)
- The mean palliative prognosis score was relatively stable between admission and follow-up (37.2 ± 12.2 vs 37.4 ± 12.1) (**Table 1**)
- Majority type of pain among the patients was nociceptive pain (62; 39.2), missing data on type of pain can limit the decision of providing methadone recommendation (**Table 2**)
- Higher utilization of home hospice compared to other hospice types (121; 76.6%) aligns with the published literature of this setting (**Table 3**)
- As per the traditional use, the sample population has higher opioids utilization for pain management compared to other medication categories (153; 96.8) (**Table 4**)
- Based on the pharmacists' clinical judgments, 37 (23.4%) methadone recommendations were provided; out of which 8 (21.6 %) were accepted by the physicians within the follow-up period
 - Out of the 8 accepted recommendation, 3 (37.5%) were implemented by the physicians themselves
- The most common recommendation was for maintenance treatment (26; 16.5%) (**Table 5**)
- Majority of the patients were diagnosed with cardiovascular diseases as a comorbidity (116; 73.4%); it aligns with the data regarding common contraindication of prescribing methadone being QTc prolongation (38; 24.0%)
- The common categories of allergies were antibiotics (46; 23.6%) and opioids (31; 15.6%); opioid allergic subpopulation was administered with alternative opioids for pain management
- Clinical outcomes of methadone recommendation accepted patients cannot be extrapolated due to missing data in the follow-up period

Conclusion

- Ongoing analysis will continue to assess the data collected to identify patterns in recommendations that were provided versus those that were not.
- Further analysis will provide an opportunity to explore methadone interactions with comorbidities as a reason for limited acceptance among physicians